

CLAIMS

We claim:

1 1. Gray cast iron alloy for a friction element of a friction clutch having a
2 friction surface for frictional contact with a clutch disk, wherein the alloy contains:

3 3.0 - 3.4 percent by weight C;

4 1.8 - 2.3 percent by weight Si;

5 0.4 - 0.8 percent by weight Mn;

6 0.0 - 0.35 percent by weight P;

7 0.0 - 0.125 percent by weight S;

8 0.4 - 0.6 percent by weight Mo; and

9 a remainder comprising iron and production-related impurities and/or additives.

10 2. A friction element for a friction clutch having friction surface for
11 frictional contact with a clutch disk, wherein said friction element is formed of flake graphite
12 alloy comprising:

13 3.0 - 3.4 percent by weight C;

14 1.8 - 2.3 percent by weight Si;

15 0.4 - 0.8 percent by weight Mn;

16 0.0 - 0.35 percent by weight P;

17 0.0 - 0.125 percent by weight S;

18 0.4 - 0.6 percent by weight Mo; and

19 a remainder comprising iron and production-related impurities and/or additives.

1 3. The friction element of claim 2, wherein said friction element comprises
2 a pressure plate.

1 4. The friction element of claim 2, wherein said friction element comprises
2 a flywheel mass part.

1 5. The friction element of claim 2, wherein said friction element comprises
2 an intermediate plate of a multidisk clutch.

6. The friction element of claim 2, wherein said friction element is cast and
stress-relief annealed at a temperature within a range including 450°C to 600°C for a period of
at least 2.5 hours after casting.

7. The friction element of claim 6, wherein said friction element is stress-
relief annealed at a temperature within a range including 500°C to 550°C for a period of at
least 3 hours.

8. The friction element of claim 3, wherein said friction element is cast and
stress-relief annealed at a temperature within a range including 450°C to 600°C for a period of
at least 2.5 hours after casting.

9. The friction element of claim 8, wherein said friction element is stress-
relief annealed at a temperature within a range including 500°C to 550°C for a period of at
least 3 hours.

4 10. The friction element of claim 4, wherein said friction element is cast and
5 stress-relief annealed at a temperature within a range including 450°C to 600°C for a period of
6 at least 2.5 hours after casting.

1 11. The friction element of claim 10, wherein said friction element is stress-
2 relief annealed at a temperature within a range including 500°C to 550°C for a period of at
3 least 3 hours.

4 12. The friction element of claim 5, wherein said friction element is cast and
5 stress-relief annealed at a temperature within a range including 450°C to 600°C for a period of
6 at least 2.5 hours after casting.

1 13. The friction element of claim 12, wherein said friction element is stress-
2 relief annealed at a temperature within a range including 500°C to 550°C for a period of at
3 least 3 hours.